

LISTING OF THE CLAIMS ON FILE

1. (Previously presented) An article formed from a water-absorbent open-celled crosslinked acid-functional addition polymer foam and having at least one surfactant applied on a surface of the article.

2. (Previously presented) The article of claim 1 wherein said surface of said formed article has been subjected to a postcrosslinking operation by application of at least one crosslinker and heating to a temperature at which said crosslinker reacts with said polymer.

3. (Previously presented) The article of claim 1 wherein said formed article is a sheet, web, film, strand, or granule.

4. (Previously presented) The article of claim 1 further having a finely divided silicone dioxide applied on a surface of the article, wherein said finely divided silicone dioxide has an average particle size of from 5 to 50 μm and a BET surface area of at least 100 m^2/g .

5. (Previously presented) The article of claim 1 wherein the amount of surfactant on said surface of said formed article is in the range from 0.01 to 5% by weight, based on the weight of the foam.

6. (Previously presented) The article of claim 1 wherein said formed article is a web or film from 0.5 to 10 mm in thickness.

7. (Previously presented) The article of claim 6 wherein, in the article, only a bodyfacing side of said web or film is surface postcrosslinked and treated with the surfactant, and optionally with a finely divided silicone dioxide.

8. (Previously presented) The article of claim 1 wherein the predominantly open-celled foam comprises a crosslinked polymer of acrylic acid.

9. (Previously presented) The article of claim 10 wherein said hygiene article is selected from the group consisting of infant diapers, incontinence products, femcare articles, wound contact materials, and secondary wound dressings.

10. (Previously presented) The article of claim 1 wherein the article is an acquisition layer or a distribution layer in a hygiene article.

11. (Previously presented) A water-absorbent open-celled crosslinked acid-functional hydrogel foam prepared by a method comprising:

- (a) preparing a polymerizable aqueous mixture containing
 - (i) from 10 to 80%, by weight, of acid-functional monoethylenically unsaturated monomers which are partially neutralized,
 - (ii) optionally up to 50%, by weight, of other monoethylenically unsaturated monomers,
 - (iii) from 0.001 to 5%, by weight, of a crosslinker,
 - (iv) at least one initiator, and
 - (v) from 0.1 to 20%, by weight, of at least one surfactant;
- (b) foaming the polymerizable aqueous mixture of step (a);
- (c) polymerizing the foamed mixture of step (b) to form a hydrogel foam;

then

- (d) treating a surface of the hydrogel foam of step (c) with at least one surfactant and optionally a finely divided silicon dioxide.

12. (Previously presented) The hydrogel foam of claim 11 wherein, prior to step (d), the surface of the hydrogel foam has been subjected to a postcrosslinking operation by application of at least one crosslinker and heating to a temperature at which said crosslinker reacts with the acid-functionality of the hydrogel foam.

13. (Previously presented) The hydrogel foam of claim 11 wherein, after step (d), the surface of the hydrogel foam has been subjected to a postcrosslinking operation by application of at least one crosslinker and heating to a temperature at which said crosslinker reacts with the acid-functionality of the hydrogel foam.

14. (Previously presented) The hydrogel foam of claim 11 wherein the amount of surfactant on the surface of the hydrogel foam is in a range of 0.01 to 5% by weight, based on the weight of the hydrogel foam.

15. (Previously presented) The hydrogel foam of claim 11 wherein the hydrogel foam comprises a crosslinked polymer of partially neutralized acrylic acid.

16. (Previously presented) The hydrogel foam of claim 11 wherein the polymerizable aqueous mixture of step (a) is foamed in step (b) by

- (i) dispersing fine bubbles of a gas which is inert toward free radicals, or
- (ii) dissolving an inert gas under a pressure of from 2 to 400 bar, then decompressing the mixture to atmospheric.